

Solid State Music

SB-1 SYNTHESIZER BOARD

WCCF 77
\$250 kit
c software, \$350
assembled.

1.0 GENERAL DESCRIPTION

The Solid State Music Synthesizer Board (SB-1) is a waveform synthesizer card designed to interface with the S-100 bus. With this card, a microcomputer may be programed to play a monophonic solo in an instrumental "voice" that is controlled by software. Polyphonic capability is provided for in MUX for multiple cards. The music is written by the user by means of high-level language (interpreter), called MUX which is entered into the system via an ASC II keyboard, paper tape, floppy or other input medium.

MUX contains the operational routines and look-up tables to generate the following:

- | | |
|--------------------------------------------|------------------------------------|
| a. the musical note | g. repetition effects |
| b. the voicing envelope (attack and decay) | h. 1/64 th note through whole note |
| c. loudness or volume commands | i. dotted note, double dotted note |
| d. octave selection (9 octave range) | j. time signature |
| e. memory retention of two waveforms | k. repeat measure |
| f. waveforms selection (voicing change) | l. key signature |
| 8 in memory | |

The use of MUX does not require programming skill. If the user can interpret the notations on a piece of sheet music he or she can relate the alpha numeric instruction to it. For example:

PP = Pianissimo	W = Whole Note
B- = B flat	Q = Quarter Note, etc.
B+ = B sharp	

1.1 OUTPUT INTERFACE

The SB-1 provides signals to a 2-pin molex connector from an emitter follower (low-impedance driver) at approximately 1 volt rms maximum loudness level.

1.2 POWER REQUIREMENTS (From S-100 bus)

+7 to +9 Vdc unregulated @ 1.3 amps
+12 to +18 Vdc unregulated @ 20 milliamps
-12 to -18 Vdc unregulated @ 20 milliamps

1.3 MEMORY MAP LOCATIONS

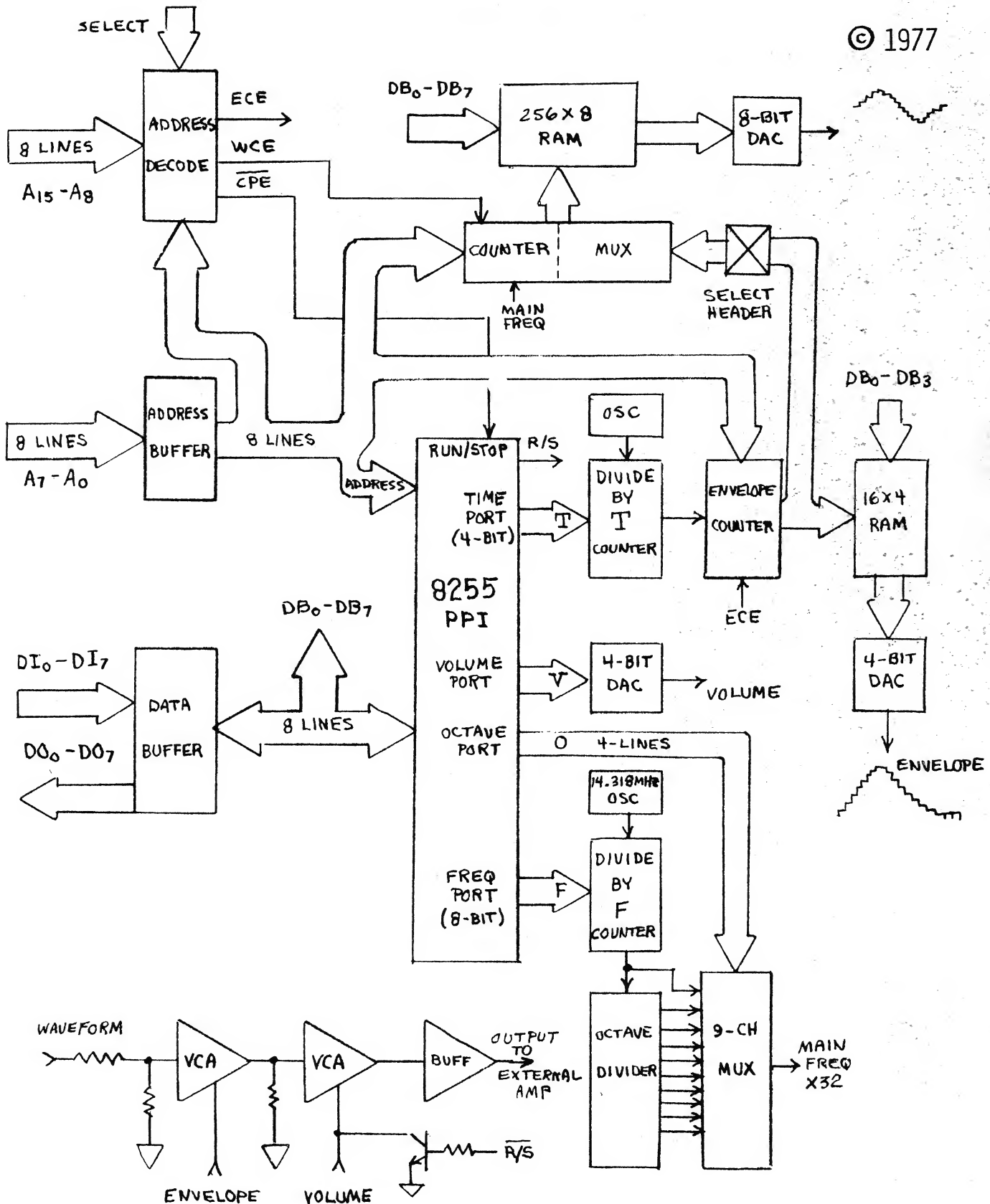
Any 256 byte increment from 8000 Hex to FFO0 HEX by presetting a switch on the card.

1.4 PRICE (all parts including IC sockets and software)

Kits - \$250.00 assembled and tested - \$350.00

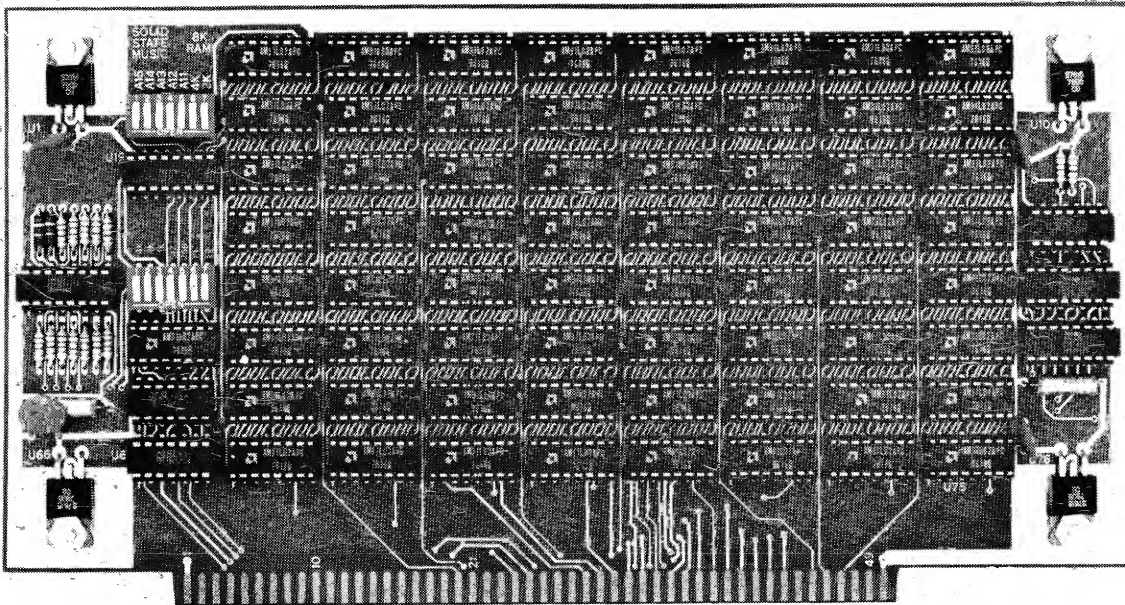
SOLID STATE MUSIC SB-1 BLOCK DIAGRAM

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8K RAM BOARD

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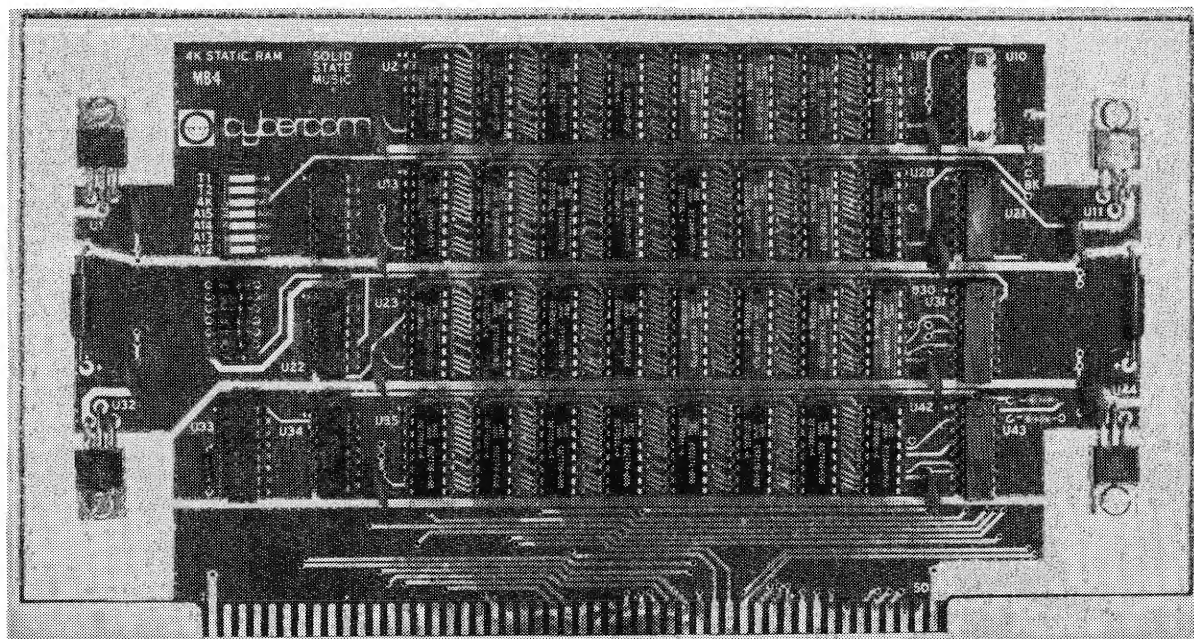
FEATURES	PARTS LIST
<ul style="list-style-type: none"> ◦ Plug compatible with the ALTAIR 8800 and IMSAI 8080, or any other system using the "ALTAIR bus." ◦ Low-power, 500 nanosecond RAMs. No wait cycles required. ◦ Low-power Schottky support chips. ◦ DIP switch selection of memory address assignment and wait cycles. ◦ Memory protect can be set for increments of 256 bits, 512 bits, 1K, 2K, 4K or 8K by DIP switch. ◦ T.I. low profile sockets provided for all RAMs and ICs. ◦ Gold plated edge connector contacts. 	<ul style="list-style-type: none"> 1 PC Board with gold fingers 69 16 pin low-profile sockets 3 14 pin low-profile sockets 2 7 position DIP switches 65 91L02APC/D2102AL-4 low-power RAMs 1 74LS00 1 7402 1 74LS42 1 74LS74 2 74367 (DM 8097) 1 DM 8131 4 7805 or 340T-5 regulators 2 2.7 uF/ 20V tantalums 4 0.1 uF disc capacitors 14 2.7K ohm, $\frac{1}{4}$W resistors 2 39K, $\frac{1}{4}$W resistors 4 sets #6 screws, nuts and washers 1 instruction set

2102A WALSH AVE. SANTA CLARA, CA. 95050

408/ 246-2707

4K/8K RAM BOARD

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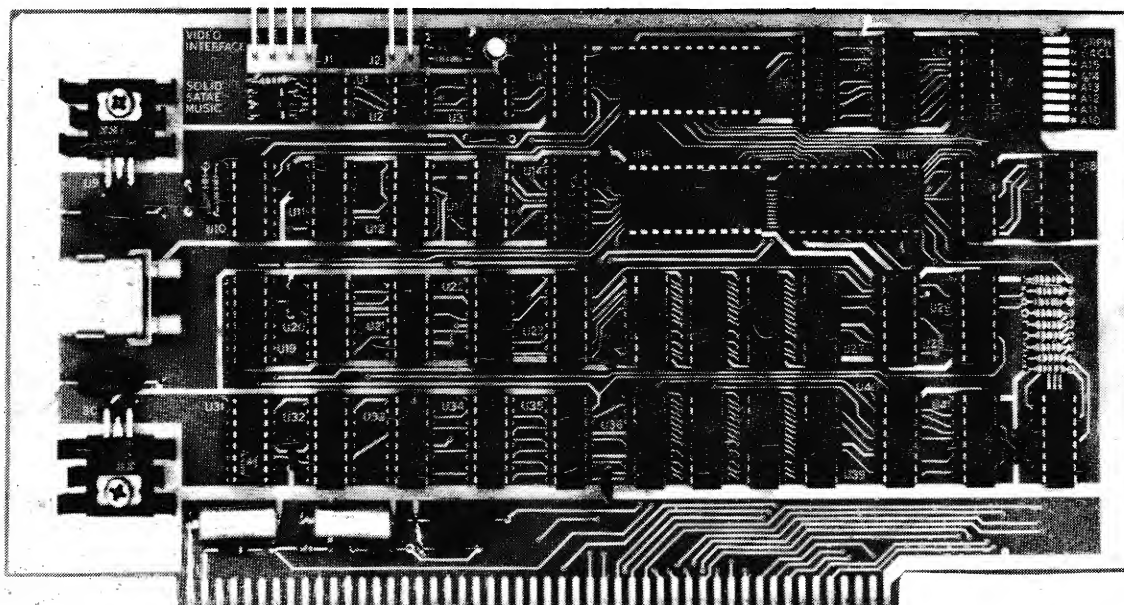


FEATURES	PARTS LIST
<ul style="list-style-type: none"> ○ Plug compatible with the ALTAIR 8800 and IMSAI 8080, or any other system using the "ALTAIR bus." ○ Low-power, 500 nanosecond RAMs. No wait cycles required. ○ Low-power or low-power Schottky support chips. ○ DIP switch selection of memory address assignment and wait cycles. ○ T.I. low-profile sockets provided for all RAMs and ICs. ○ Gold plated edge connector contacts. ○ Designed to allow "piggy-backing" of RAMs to make 8K of memory. Your option of 4K or 8K kit. 	<ul style="list-style-type: none"> 1 PC board with gold fingers 32 Low-power, 500ns RAMs (4K kit) or 64 Low-power, 500ns RAMs (8K kit) 2 74L00 or 74LS00 1 74L02 or 74LS02 1 74L42 or 74LS42 1 74L74 or 74LS74 2 74367 or DM8097 1 DM8131 4 7805 or 340T-5 regulators 1 7-position DIP switch 36 16 pin low-profile sockets 4 14 pin low-profile sockets 2 tantalum capacitors 12 .1 uf disc capacitors 7 1K ohm $\frac{1}{4}$W resistors 2 4.7K ohm $\frac{1}{4}$W resistors 1 10K ohm $\frac{1}{4}$W resistor 1 33K ohm $\frac{1}{4}$W resistor 4 sets of #6 hardware for regulators 1 instruction set

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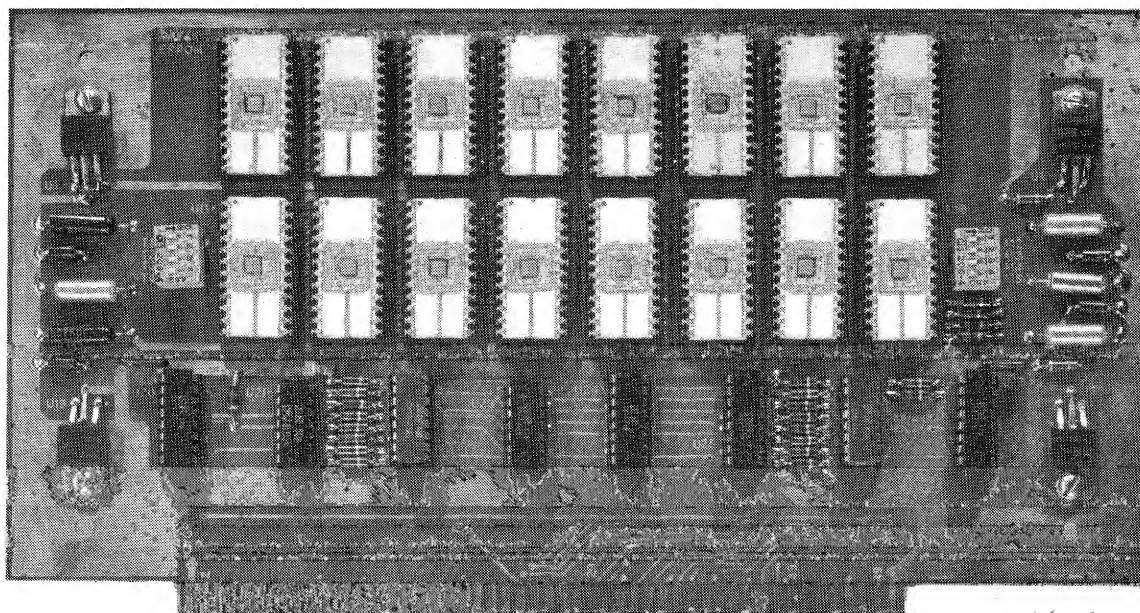
VIDEO INTERFACE



FEATURES	PARTS																																																		
<ul style="list-style-type: none"> ■ S100 Bus Compatible ■ 32 or 64 Characters per line ■ 16 lines ■ Graphics (128 X 48 matrix) ■ Parallel & Composite video ■ On board low-power memory ■ Powerful software included for cursor, home, EOL, Scroll Graphics/Character, etc. ■ Upper case, lower case & Greek ■ Output to video monitor or video amplifier in T.V. set. ■ Black-on-white & white-on black ■ Sockets included 	<table border="0"> <tr> <td>1-PC Board</td><td>9-2.7K 1/4w</td></tr> <tr> <td>1-Copy Softw</td><td>1-1K 1/4w</td></tr> <tr> <td>1-MCM6571AP</td><td>2-15 ohm 3w</td></tr> <tr> <td>1-74LS00</td><td>10-.01 discs</td></tr> <tr> <td>1-74S04</td><td>1-0.001 disc</td></tr> <tr> <td>1-7408</td><td>2-2.7uf 20v TA</td></tr> <tr> <td>1-7432</td><td>3-39uf 10v TA</td></tr> <tr> <td>4-7474</td><td>1-1N746A ZD 3.3V</td></tr> <tr> <td>1-7486</td><td>1-1N4742/1N716 ZD 12V</td></tr> <tr> <td>2-74150</td><td>1-20MHZ xtal</td></tr> <tr> <td>1-74153</td><td>2-heatsinks</td></tr> <tr> <td>2-74157</td><td>2-sets No.6 hdw</td></tr> <tr> <td>1-74165</td><td>3-24-pin sockets</td></tr> <tr> <td>6-74193</td><td>3-8-pin sockets</td></tr> <tr> <td>(selected)</td><td>25-16-pin sockets</td></tr> <tr> <td>3-74365(8095)</td><td>9-14-pin sockets</td></tr> <tr> <td>3-74367(8097)</td><td>1-instruction set</td></tr> <tr> <td>1-DM8131</td><td>1-8 POS dip switch</td></tr> <tr> <td>3-75451</td><td>NOTE: substitutions</td></tr> <tr> <td>8-2102AL-4</td><td>may be made which</td></tr> <tr> <td>2-PLUG SETS</td><td>do not degrade</td></tr> <tr> <td>1-2N2222</td><td>performance.</td></tr> <tr> <td>2-340T-5/7805</td><td></td></tr> <tr> <td>7-100 ohm 1/4w</td><td></td></tr> <tr> <td>3-220 ohm 1/4w</td><td></td></tr> </table>	1-PC Board	9-2.7K 1/4w	1-Copy Softw	1-1K 1/4w	1-MCM6571AP	2-15 ohm 3w	1-74LS00	10-.01 discs	1-74S04	1-0.001 disc	1-7408	2-2.7uf 20v TA	1-7432	3-39uf 10v TA	4-7474	1-1N746A ZD 3.3V	1-7486	1-1N4742/1N716 ZD 12V	2-74150	1-20MHZ xtal	1-74153	2-heatsinks	2-74157	2-sets No.6 hdw	1-74165	3-24-pin sockets	6-74193	3-8-pin sockets	(selected)	25-16-pin sockets	3-74365(8095)	9-14-pin sockets	3-74367(8097)	1-instruction set	1-DM8131	1-8 POS dip switch	3-75451	NOTE: substitutions	8-2102AL-4	may be made which	2-PLUG SETS	do not degrade	1-2N2222	performance.	2-340T-5/7805		7-100 ohm 1/4w		3-220 ohm 1/4w	
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2K/4K EPROM BOARD

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DESCRIPTION & PRICES

- ALTAIR 8800 and IMSAI 8080 plug compatible
- Option of 2K (8) or 4K (16) 1702As
- Dip switch selection of addressing and wait cycles
- Reverse voltage protection
- On board regulators for +5 & -9 v
- All sockets included in kits
- Gold plated finger contacts

Complete Kit (less EPROMS) \$65.00

Complete Kit (8 EPROMS) \$145.00

Complete Kit (16 EPROMS) \$225.00

Prices include postage for U.S. and Canada. We ship UPS Blue Label when appropriate. UPS COD orders accepted. No credit cards please.

BASIC KIT LIST

- 2 CTS dip switches
- 16 24 pin low profile sockets
- 6 16 pin low profile sockets
- 2 14 pin low profile sockets
- 2 LM340T-5 regulators
- 2 LM320T-8 regulators
- 4 1N4001 diodes
- 2 56 ohm 5% resistors
- 6 470 ohm 5% resistors
- 19 2.7 K ohm resistors
- 6 tantalum capacitors
- 2 .1 ceramic capacitors
- 1 74L00
- 1 74L04
- 2 74L42
- 1 74175
- 2 DM8097
- 1 DM8131
- 1 PC board
- 4 sets #6 screws, nuts & washers

2102A Walsh Ave Santa Clara, CA 95050

Solid State Music

NEW PRODUCTS
COMING SOON FROM SOLID STATE MUSIC

MB7 - 16K STATIC RAM

FEATURES

- Directly Compatible with Altair 8800, IMSAI 8080 & Poly 88 S-100 Bus
- High Density - 16K Bytes on One Board
- Static 300ns Memory - No Refresh or Wait Cycles to Slow Processor
- Memory Protect is Separated Into Four 4K Blocks
- Memory Automatically Unprotects When Power Is Turned On
- DIP Switch Address Selection Starting At Any 4K Boundary
- DIP Switch at Top of Board Allows Address Changing Without Board Removal
- Board Inhibit Line - Allows Expansion Beyond 64K
- Sockets for All IC's
- Gold Plated Edge Connector Contacts
- Fully Buffered Address and Data Lines

MB8 8K-16K EPROM KIT

- ALTAIR 8800 and IMSAI 8080 plug compatible
- Option of 8K (8) or 16K (16) 2708's
- DIP switch selection of addressing and wait cycles
- Reverse voltage protection
- On board regulators
- All sockets included in kits
- Gold plated finger contacts

SOLID STATE MUSIC products are available coast to coast at your local computer store. Check the attached dealers list for the store nearest you. If you don't see our line of fine products on display ask for us - we're "THE BLUE BOARDS".

2102A Walsh Ave., Santa Clara, CA 95050 (408) 246-2707

BOARDS & KITS

MB-3 2K/4K EPROM Board

S-100 bus compatible. Option of 8 (2K) or 16 (4K) 1702's. DIP switch selection of address and wait cycles. Reverse voltage protection. On-board regulators for +5 and -9 volts. Kit includes IC sockets, but not edge connector.

Kit less EPROMs - \$65.00 Kit with 8 EPROMs - \$105.00
Kit with 16 EPROMs - \$145.00

Motherboard

Compatible only with ALTAIR 8800. Space for 15 connectors; .125 spacing between pins. 11 x 11½ inches.

Board alone - \$45.00 With 15 edge connectors - \$105.00

ALTAIR/IMSAI extender board - \$9.00 Board with 100-pin connector - \$13.50

MB-4 4K/8K Memory Board

Improved version of MB-2. Designed especially to make the 8K "piggy-back" a simple task. Separate pads for the chip enable; selection of 4K or 8K by DIP switch and one jumper. No heat sinks required for regulators when running 8K. A power saver since the same TTL and regulators are used for the additional 4K of RAMs.

PC board only - \$30.00 Kit with 4K 500ns lowpower RAMs - \$129.95
Kit with 8K 500ns lowpower RAMs - \$209.85 Wired and tested 4K board - \$179.95
Wired and tested 8K board - \$300.00

MB-6 8K Memory Board

S-100 bus compatible. DIP switch selection of memory address assignments and wait cycles. Memory protect can be set in increments of 256 bits, 512 bits, 1K, 2K, 4K, or 8K by DIP switch. Is solder masked and has provision for battery back-up. Uses low-power Schottky support chips.

Kit with 8K 500ns low-power RAMs - \$265.00 Wired and tested kit - \$325.00

IO-2 Input/Output, PROM and Universal Board

S-100 bus compatible. Two I/O ports committed, pads provided for three additional ports, including one serial. Other pads to facilitate wiring for a UART, EPROMs etc. Instructions include information on several wiring options. Gold contacts for edge connector. Kit includes parts necessary for two I/O ports.

PC board alone - \$30.00 Complete Kit - \$55.00 Wired and tested - \$79.95

VB-1 Video Interface Board

S-100 bus compatible. Display is 32 or 64 characters by 16 lines (DIP switch selectable). Parallel and composite outputs to video monitor or TV set. 1K of on board memory for graphics and text. Upper and lower case, Greek alphabet, other interchangeable fonts available. 2 x 3 matrix graphics. Kit includes software manual.

Kit with 1K 500ns low-power RAMs - \$189.95 Wired and tested kit - \$249.95

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(602) 242-2507

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San Rafael, CA 94901
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BYTE SHOP OF LAWDALE
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San Francisco, CA
(415) 431-0640

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Skokie, IL 60076
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DATA DOMAIN
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Bloomington, IN 47401
(812) 334-3607

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506 1/2 Euclid
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(606) 233-3346

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13107 Claxton Dr.
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(617) 661-2670

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Harrisburg, PA 17111
(717) 564-2440

MAIL ORDER

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San Carlos, CA 94070

QUEST ELECTRONICS
P.O. BOX 4430C
Santa Clara, CA 95054
(408) 988-1640

WCCF 77

→ NB video board =
text 64 x 16
Upper, lower, 6-df
5 regic
4 some spec. v

Solid State Music

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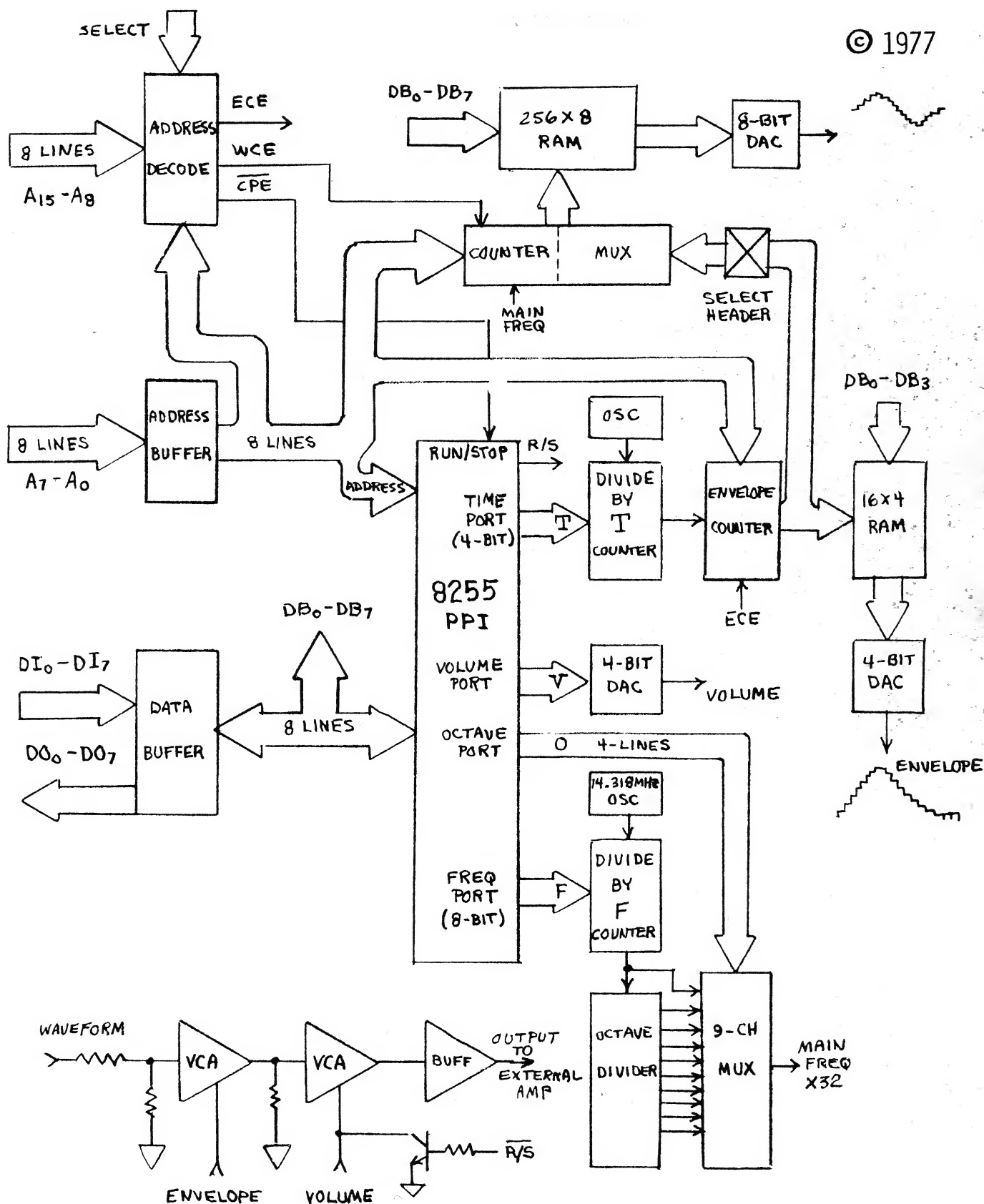
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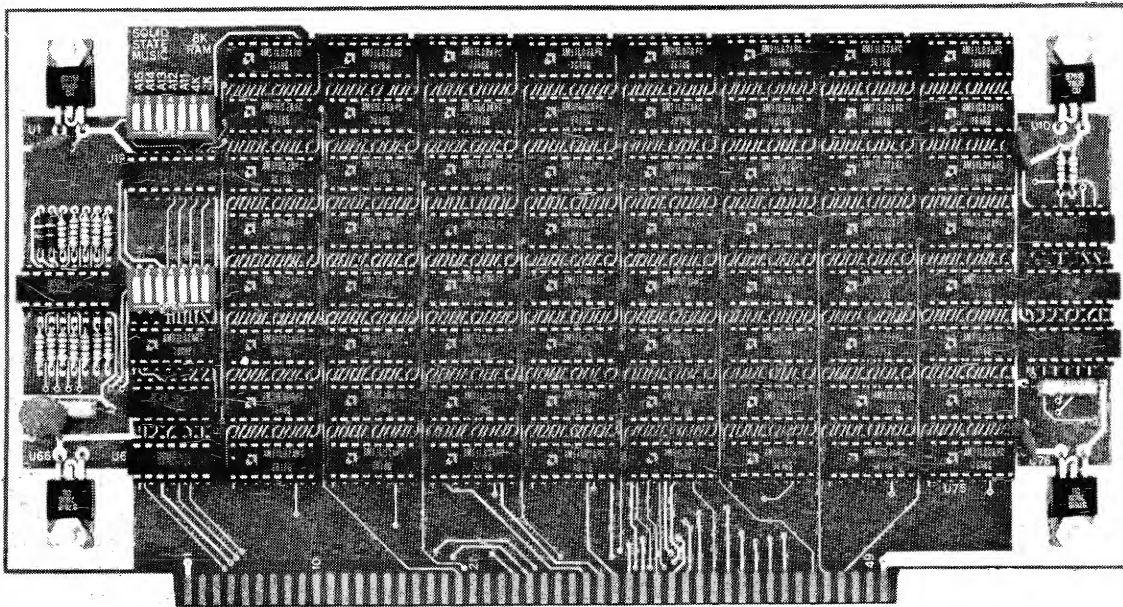
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שכנח י"ז



8K RAM BOARD

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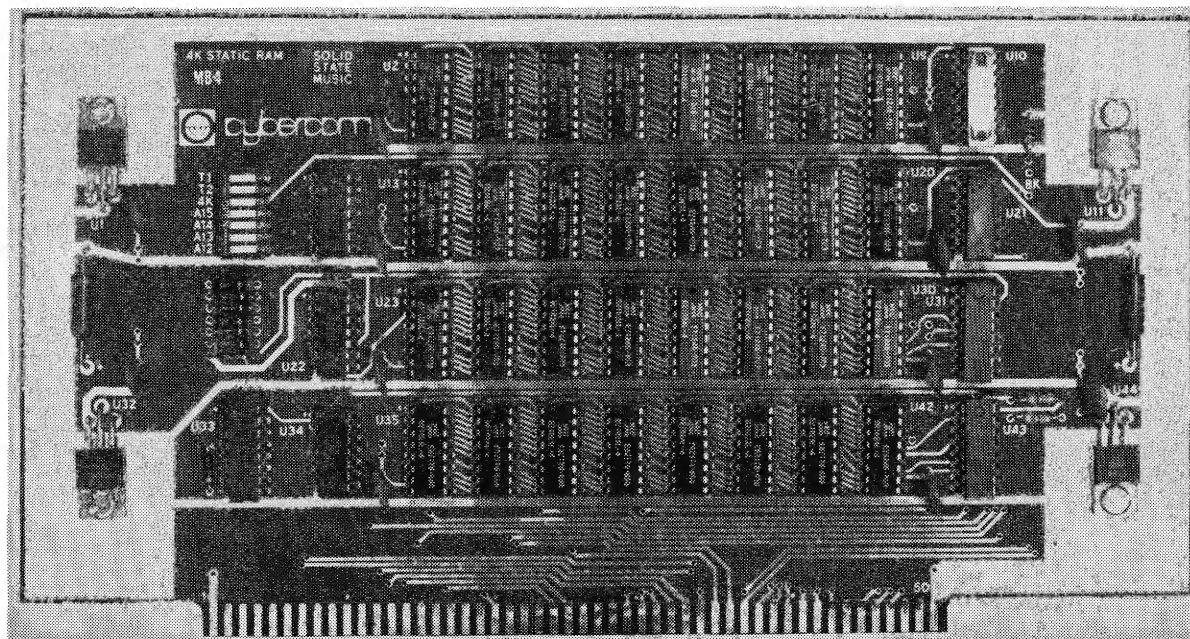
FEATURES	PARTS LIST
<ul style="list-style-type: none"> ○ Plug compatible with the ALTAIR 8800 and IMSAI 8080, or any other system using the "ALTAIR bus." ○ Low-power, 500 nanosecond RAMs. No wait cycles required. ○ Low-power Schottky support chips. ○ DIP switch selection of memory address assignment and wait cycles. ○ Memory protect can be set for increments of 256 bits, 512 bits, 1K, 2K, 4K or 8K by DIP switch. ○ T.I. low profile sockets provided for all RAMs and ICs. ○ Gold plated edge connector contacts. 	<ul style="list-style-type: none"> 1 PC Board with gold fingers 69 16 pin low-profile sockets 3 14 pin low-profile sockets 2 7 position DIP switches 65 91L02APC/D2102AL-4 low-power RAMs 1 74LS00 1 7402 1 74LS42 1 74LS74 2 74367 (DM 8097) 1 DM 8131 4 7805 or 340T-5 regulators 2 2.7 uF/ 20V tantalums 4 0.1 uF disc capacitors 14 2.7K ohm, $\frac{1}{4}$W resistors 2 39K, $\frac{1}{4}$W resistors 4 sets #6 screws, nuts and washers 1 instruction set

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408/ 246-2707

4K/8K RAM BOARD

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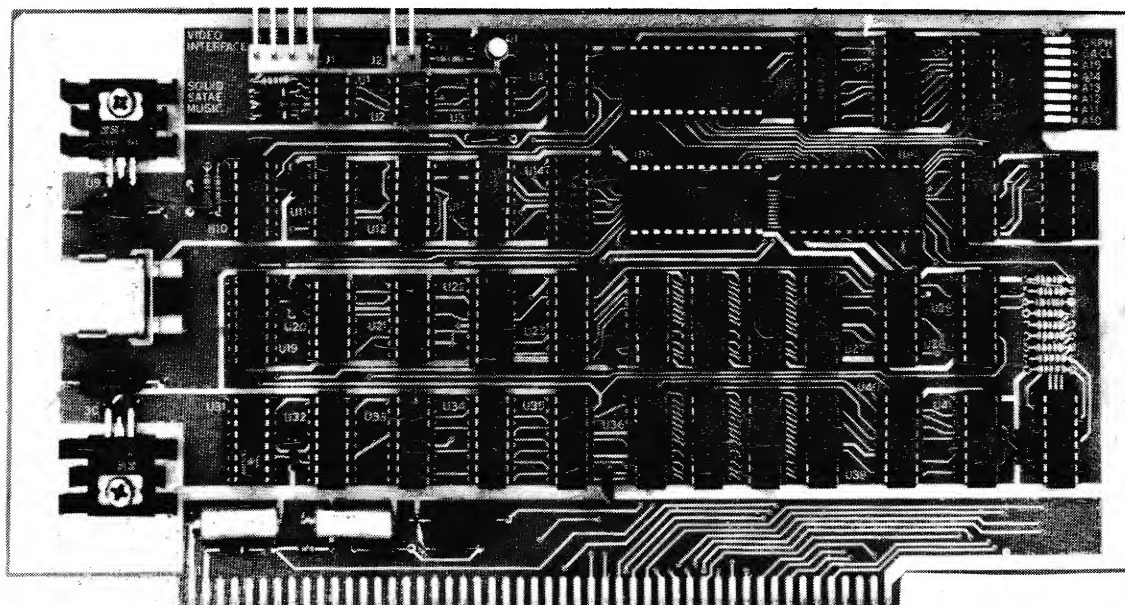


FEATURES	PARTS LIST
<ul style="list-style-type: none"> ○ Plug compatible with the ALTAIR 8800 and IMSAI 8080, or any other system using the "ALTAIR bus." ○ Low-power, 500 nanosecond RAMs. No wait cycles required. ○ Low-power or low-power Schottky support chips. ○ DIP switch selection of memory address assignment and wait cycles. ○ T.I. low-profile sockets provided for all RAMs and ICs. ○ Gold plated edge connector contacts. ○ Designed to allow "piggy-backing" of RAMs to make 8K of memory. Your option of 4K or 8K kit. 	<ul style="list-style-type: none"> 1 PC board with gold fingers 32 Low-power, 500ns RAMs (4K kit) or 64 Low-power, 500ns RAMs (8K kit) 2 74L00 or 74LS00 1 74L02 or 74LS02 1 74L42 or 74LS42 1 74L74 or 74LS74 2 74367 or DM8097 1 DM8131 4 7805 or 340T-5 regulators 1 7-position DIP switch 36 16 pin low-profile sockets 4 14 pin low-profile sockets 2 tantalum capacitors 12 .1 uf disc capacitors 7 1K ohm $\frac{1}{4}$W resistors 2 4.7K ohm $\frac{1}{4}$W resistors 1 10K ohm $\frac{1}{4}$W resistor 1 33K ohm $\frac{1}{4}$W resistor 4 sets of #6 hardware for regulators 1 instruction set

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VIDEO INTERFACE



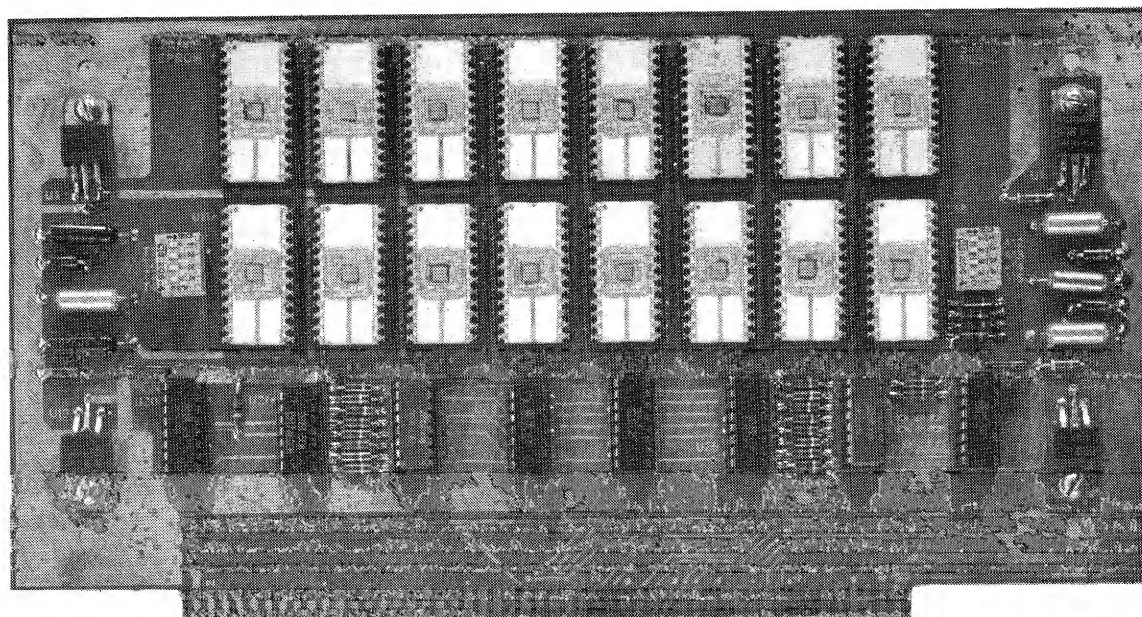
FEATURES	PARTS																																																		
<ul style="list-style-type: none"> ■ S100 Bus Compatible ■ 32 or 64 Characters per line ■ 16 lines ■ Graphics (128 X 48 matrix) ■ Parallel & Composite video ■ On board low-power memory ■ Powerful software included for cursor, home, EOL, Scroll Graphics/Character, etc. ■ Upper case, lower case & Greek ■ Output to video monitor or video amplifier in T.V. set. ■ Black-on-white & white-on black ■ Sockets included 	<table border="0"> <tr> <td>1-PC Board</td><td>9-2.7K 1/4w</td></tr> <tr> <td>1-Copy Softw</td><td>1-1K 1/4w</td></tr> <tr> <td>1-MCM6571AP</td><td>2-15 ohm 3w</td></tr> <tr> <td>1-74LS00</td><td>10-.01 discs</td></tr> <tr> <td>1-74S04</td><td>1-0.001 disc</td></tr> <tr> <td>1-7408</td><td>2-2.7uf 20v TA</td></tr> <tr> <td>1-7432</td><td>3-39uf 10v TA</td></tr> <tr> <td>4-7474</td><td>1-1N746A ZD 3.3V</td></tr> <tr> <td>1-7486</td><td>1-1N4742/1N716 ZD 12V</td></tr> <tr> <td>2-74150</td><td>1-20MHZ xtal</td></tr> <tr> <td>1-74153</td><td>2-heatsinks</td></tr> <tr> <td>2-74157</td><td>2-sets No.6 hdw</td></tr> <tr> <td>1-74165</td><td>3-24-pin sockets</td></tr> <tr> <td>6-74193</td><td>3-8-pin sockets</td></tr> <tr> <td>(selected)</td><td>25-16-pin sockets</td></tr> <tr> <td>3-74365(8095)</td><td>9-14-pin sockets</td></tr> <tr> <td>3-74367(8097)</td><td>1-instruction set</td></tr> <tr> <td>1-DM8131</td><td>1-8 POS dip switch</td></tr> <tr> <td>3-75451</td><td>NOTE: substitutions</td></tr> <tr> <td>8-2102AL-4</td><td>may be made which</td></tr> <tr> <td>2-PLUG SETS</td><td>do not degrade</td></tr> <tr> <td>1-2N2222</td><td>performance.</td></tr> <tr> <td>2-340T-5/7805</td><td></td></tr> <tr> <td>7-100 ohm 1/4w</td><td></td></tr> <tr> <td>3-220 ohm 1/4w</td><td></td></tr> </table>	1-PC Board	9-2.7K 1/4w	1-Copy Softw	1-1K 1/4w	1-MCM6571AP	2-15 ohm 3w	1-74LS00	10-.01 discs	1-74S04	1-0.001 disc	1-7408	2-2.7uf 20v TA	1-7432	3-39uf 10v TA	4-7474	1-1N746A ZD 3.3V	1-7486	1-1N4742/1N716 ZD 12V	2-74150	1-20MHZ xtal	1-74153	2-heatsinks	2-74157	2-sets No.6 hdw	1-74165	3-24-pin sockets	6-74193	3-8-pin sockets	(selected)	25-16-pin sockets	3-74365(8095)	9-14-pin sockets	3-74367(8097)	1-instruction set	1-DM8131	1-8 POS dip switch	3-75451	NOTE: substitutions	8-2102AL-4	may be made which	2-PLUG SETS	do not degrade	1-2N2222	performance.	2-340T-5/7805		7-100 ohm 1/4w		3-220 ohm 1/4w	
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(408)246-2707

2K/4K EPROM BOARD

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DESCRIPTION & PRICES

- ALTAIR 8800 and IMSAI 8080 plug compatible
- Option of 2K (8) or 4K (16) 1702As
- Dip switch selection of addressing and wait cycles
- Reverse voltage protection
- On board regulators for +5 & -9 v
- All sockets included in kits
- Gold plated finger contacts

Complete Kit (less EPROMS) \$65.00

Complete Kit (8 EPROMS) \$145.00

Complete Kit (16 EPROMS) \$225.00

Prices include postage for U.S. and Canada. We ship UPS Blue Label when appropriate. UPS COD orders accepted. No credit cards please.

BASIC KIT LIST

- 2 CTS dip switches
- 16 24 pin low profile sockets
- 6 16 pin low profile sockets
- 2 14 pin low profile sockets
- 2 LM340T-5 regulators
- 2 LM320T-8 regulators
- 4 1N4001 diodes
- 2 56 ohm 5% resistors
- 6 470 ohm 5% resistors
- 19 2.7 K ohm resistors
- 6 tantalum capacitors
- 2 .1 ceramic capacitors
- 1 74L00
- 1 74L04
- 2 74L42
- 1 74175
- 2 DM8097
- 1 DM8131
- 1 PC board
- 4 sets #6 screws, nuts & washers

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Solid State Music

NEW PRODUCTS
COMING SOON FROM SOLID STATE MUSIC

MB7 - 16K STATIC RAM

FEATURES

- Directly Compatible with Altair 8800, IMSAI 8080 & Poly 88 S-100 Bus
- High Density - 16K Bytes on One Board
- Static 300ns Memory - No Refresh or Wait Cycles to Slow Processor
- Memory Protect is Separated Into Four 4K Blocks
- Memory Automatically Unprotects When Power Is Turned On
- DIP Switch Address Selection Starting At Any 4K Boundary
- DIP Switch at Top of Board Allows Address Changing Without Board Removal
- Board Inhibit Line - Allows Expansion Beyond 64K
- Sockets for All IC's
- Gold Plated Edge Connector Contacts
- Fully Buffered Address and Data Lines

MB8 8K-16K EPROM KIT

- ALTAIR 8800 and IMSAI 8080 plug compatible
- Option of 8K (8) or 16K (16) 2708's
- DIP switch selection of addressing and wait cycles
- Reverse voltage protection
- On board regulators
- All sockets included in kits
- Gold plated finger contacts

SOLID STATE MUSIC products are available coast to coast at your local computer store. Check the attached dealers list for the store nearest you. If you don't see our line of fine products on display ask for us - we're "THE BLUE BOARDS".

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BOARDS & KITS

MB-3 2K/4K EPROM Board

S-100 bus compatible. Option of 8 (2K) or 16 (4K) 1702's. DIP switch selection of address and wait cycles. Reverse voltage protection. On-board regulators for +5 and -9 volts. Kit includes IC sockets, but not edge connector.

Kit less EPROMs - \$65.00 Kit with 8 EPROMs - \$105.00
Kit with 16 EPROMs - \$145.00

Motherboard

Compatible only with ALTAIR 8800. Space for 15 connectors; .125 spacing between pins. 11 x 11½ inches.

Board alone - \$45.00 With 15 edge connectors - \$105.00

ALTAIR/IMSAI extender board - \$9.00 Board with 100-pin connector - \$13.50

MB-4 4K/8K Memory Board

Improved version of MB-2. Designed especially to make the 8K "piggy-back" a simple task. Separate pads for the chip enable; selection of 4K or 8K by DIP switch and one jumper. No heat sinks required for regulators when running 8K. A power saver since the same TTL and regulators are used for the additional 4K of RAMs.

PC board only - \$30.00 Kit with 4K 500ns lowpower RAMs - \$129.95
Kit with 8K 500ns lowpower RAMs - \$209.85 Wired and tested 4K board - \$179.95
Wired and tested 8K board - \$300.00

MB-6 8K Memory Board

S-100 bus compatible. DIP switch selection of memory address assignments and wait cycles. Memory protect can be set in increments of 256 bits, 512 bits, 1K, 2K, 4K, or 8K by DIP switch. Is solder masked and has provision for battery back-up. Uses low-power Schottky support chips.

Kit with 8K 500ns low-power RAMs - \$265.00 Wired and tested kit - \$325.00

IO-2 Input/Output, PROM and Universal Board

S-100 bus compatible. Two I/O ports committed, pads provided for three additional ports, including one serial. Other pads to facilitate wiring for a UART, EPROMs etc. Instructions include information on several wiring options. Gold contacts for edge connector. Kit includes parts necessary for two I/O ports.

PC board alone - \$30.00 Complete Kit - \$55.00 Wired and tested - \$79.95

VB-1 Video Interface Board

S-100 bus compatible. Display is 32 or 64 characters by 16 lines (DIP switch selectable). Parallel and composite outputs to video monitor or TV set. 1K of on board memory for graphics and text. Upper and lower case, Greek alphabet, other interchangeable fonts available. 2 x 3 matrix graphics. Kit includes software manual.

Kit with 1K 500ns low-power RAMs - \$189.95 Wired and tested kit - \$249.95

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